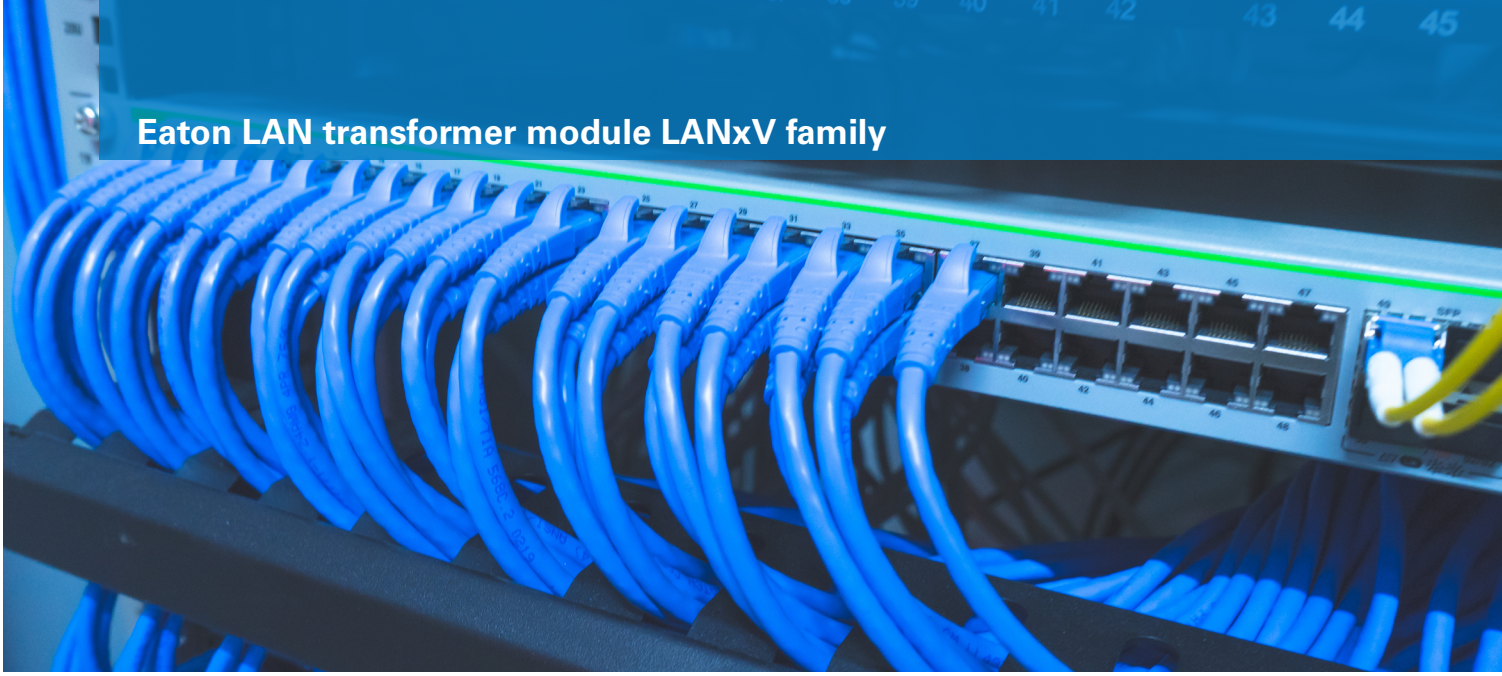
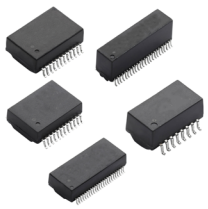


Eaton LAN transformer module LANxV family

LAN transformer and common mode choke modules for reliable Ethernet connectivity



The Eaton's LANxV family is a comprehensive solution that combines a LAN transformer and a common mode choke into a single module.

Product description

The Eaton's LANxV family is a comprehensive solution that combines a LAN transformer and a common mode choke into a single module. It serves as an efficient interface between the PHY (physical layer) and RJ45 Ethernet connectors. The LANxV provides signal decoupling from the power line and common mode filtering for unshielded and shielded transmit (Tx) and receive (Rx) lines. Conveniently packaged in standard SMT sizes from 13 mm to 30 mm, LANxV complies with IEEE802.3 (CSMA/CD bus), supporting 100/1000/2.5G/5G/10GBASE-T fast data protocols for both non-PoE and PoE platforms. These products are suitable for a wide range of commercial applications for industrial, computing, energy, and consumer LAN products that use RJ45 connectors. The LANxV series is offered in EIA standard tape and reel packaging and rated for a wide operating temperature range from -40 °C to +85 °C.

Features and benefits

- Standard LAN transformer module package with transformer and common mode filtering offers design simplicity in popular SMT sizes (13 mm to 30 mm)
- Multiple port configurations
- IEEE802.3 (CSMA/CD Bus) compliant
- Support for several IEEE 802.3 protocols (10/100/1000/2.5G/5G/10G) for non-PoE and PoE products
- Supports IEEE802.3 for 15 W PoE, 25.5 W PoE+ and up to 100 W PoE++ protocols, ideal for power switch equipment (PSE) and power device equipment (PDE)
- 1500 V isolation voltage
- Wide range of inductances (from 120 µH to 350 µH) to support a wide range of low and high power IEEE802.3 standards
- Specified low leakage inductance (0.5 µH, maximum) for low power losses, low heating of components, and enhanced system performance
- Wide operating temperature range (-40 °C to +85 °C)

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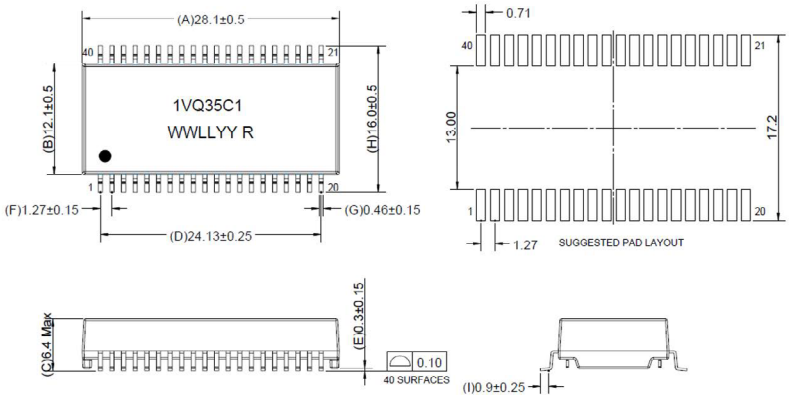
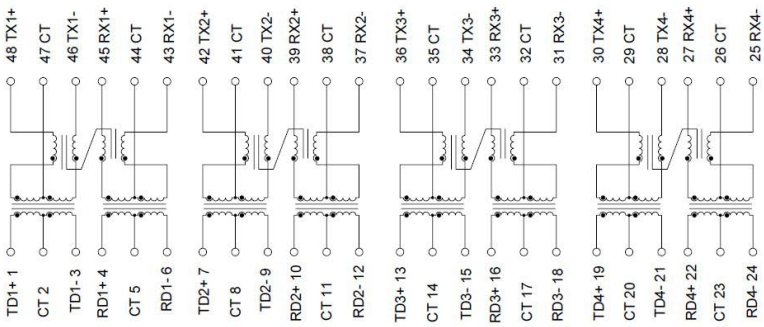
Product specifications

Part number	Port	Pins	Inductance (µH)	DCR (Ω)	Turns ratio	Hipot	Operating ambient temperature	Standard	Data rate	Type	Size LxWxH (mm) maximum
LAN1VSOS16351C2	Single	16	350 @ 8 mAdc	1.2	1CT:1CT	1500 Vac, primary to secondary	-40 °C to +85 °C	IEEE 802.3u	100BASE-T	Non-PoE	13.2 x 9.9 x 6.2
LAN1VSOD24351C2	Dual	24	350 @ 8 mAdc	1.2	1CT:1CT	1500 Vac, primary to secondary	-40 °C to +85 °C	IEEE 802.3u	100BASE-T	Non-PoE	18 x 16.5 x 6.2
LAN1VSOQ40351C1	Quad	40	350 @ 8 mAdc	1.2	1CT:1CT	1500 Vac, primary to secondary	-0 °C to +70 °C	IEEE 802.3u	100BASE-T	Non-PoE	28.6 x 16.5 x 6.4
LAN1VSOPS16351C2	Single	16	350 @ 8 mAdc 120 @ 19 mAdc	1.4	1CT:1CT	1500 Vac, primary to secondary	-40 °C to +85 °C	IEEE 802.3u IEEE 802.3at	100BASE-T	PoE	13.2 x 9.9 x 6.4
LAN1VSOPQ48351C1	Quad	48	350 @ 8 mAdc	1.2	1CT:1CT	1500 Vac, primary to secondary	-0 °C to +70 °C	IEEE 802.3u IEEE 802.3af	100BASE-T	PoE	28.3 x 15.74 x 7.5
LAN2VSAS24351C2	Single	24	350 @ 0 mAdc	1.2	1CT:1CT	1500 Vac, primary to secondary	-40 °C to +85 °C	IEEE 802.3ab	1000BASE-T	Non-PoE	17.1 x 10 x 3
LAN2VSOS24351C2	Single	24	350 @ 8 mAdc	1.2	1CT:1CT	1500 Vac, primary to secondary	-40 °C to +85 °C	IEEE 802.3ab	1000BASE-T	Non-PoE	15.6 x 10.5 x 4.5
LAN2VSOD48351C2	Dual	48	350 @ 8 mAdc	1.2	1CT:1CT	1500 Vac, primary to secondary	-40 °C to +85 °C	IEEE 802.3ab	1000BASE-T	Non-PoE	28.3 x 15.74 x 7.5
LAN2VSOPS24351C2	Single	24	350 @ 13 mAdc	1.4	1CT:1CT	1500 Vac, primary to secondary	-40 °C to +85 °C	IEEE 802.3ab IEEE 802.3.at	1000BASE-T	PoE	18 x 16.5 x 6.2
LAN2VSOPD48351C2	Dual	48	350 @ 10.8 mAdc	0.6	1CT:1CT	1500 Vac, primary to secondary	-40 °C to +85 °C	IEEE 802.3ab IEEE 802.3.at	1000BASE-T	PoE	28.3 x 15.74 x 7.5
LAN3VSOS24151C2	Single	24	150 @ 0 mAdc	1.2	1CT:1CT	1500 Vac, primary to secondary	-40 °C to +85 °C	IEEE 802.3bz	2.5G BASE-T	Non-PoE	15.6 x 10.5 x 4.5
LAN3VSOPD48151C2	Dual	48	180 @ 0 mAdc 150 @ 15 mAdc	1.6	1CT:1CT	1500 Vac, primary to secondary	-40 °C to +85 °C	IEEE 802.3bz IEEE 802.3.at	2.5G BASE-T	PoE	30.25 x 11.25 x 11.95
LAN4VSOS24151C2	Single	24	150 @ 0mAdc	1.2	1CT:1CT	1500 Vac, primary to secondary	-40 °C to +85 °C	IEEE 802.3bz	5G BASE-T	Non-PoE	18 x 16.5 x 6.2
LAN4VSOPS24151C2	Single	24	180 @ 0 mAdc 150 @ 10.8 mAdc	1.2	1CT:1CT	1500 Vac, primary to secondary	-40 °C to +85 °C	IEEE 802.3bz IEEE 802.3.af	5G BASE-T	PoE	14.1 x 15.5 x 6.6
LAN5VSOS24121C2	Single	24	120 @ 0 mAdc	1.2	1CT:1CT	1500 Vac, primary to secondary	-40 °C to +85 °C	IEEE 802.3an	10G BASE-T	Non-PoE	14.1 x 15.5 x 6.6
LAN5VSOPS24121C3	Single	24	120 @ 13 mAdc	1.4	1CT:1CT	1500 Vac, primary to secondary	-40 °C to +85 °C	IEEE 802.3an IEEE 802.3bt	10G BASE-T	PoE	18.3 x 16.5 x 6.8

Mechanical parameters- mm

Drawing and schematic are representative-- see data sheets for actual dimensions and detail





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